

Appl. No. 10/644,200

Reply to Office Action of August 24, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A battery pack comprising:

a battery block that houses one or more cylindrical lithium ion secondary batteries in a battery package, said batteries being arranged in the battery block according to a given polarity and connected to each other with a metal tab, wherein the tab is made by punching out a metal plate material into a strip shape and bending the strip in a given shape;

a circuit block housing a circuit in a circuit package, the circuit having a measurement function associated with at least one of a use condition of the batteries, a measurement function associated with performance of the batteries, and a protection function to protect the batteries; and

an outer case capable of fitting in and housing the battery block and the circuit block, wherein the battery block and the circuit block can be independently removed and replaced from the outer case, and wherein an inside dimension of the outer case substantially equals a total outside dimension of the battery block and the circuit block, wherein the battery block has a connection terminal on a side facing the circuit block, said connection terminal connected to the tab, and the circuit block has a connection on a side facing the battery block and a part of the connection terminal which is exposed out of the battery package and circuit package includes a blade spring in a tranche shape, wherein at least one of the battery package and the circuit package includes a hermetic package, and wherein the hermetic package has a hermetic structure that is formed by fitting together an open top lower package and an upper package having a groove corresponding to an opening of the lower package by press fitting.

Claims 2-4 (canceled)

Claim 5 (currently amended): The battery pack according to claim 1, wherein the connection terminals are insert molded in the battery package and the circuit package.

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Claim 6 (currently amended): The battery pack according to claim 1, wherein the connection terminal and a tab of the battery have branched parts on each edge and are connected by engaging the branched parts of the connection terminal and the branched parts of the tab of the battery.

Claim 7 (currently amended): A battery pack comprising:
an outer case for housing one or more cylindrical lithium ion secondary batteries and a circuit having at least one of a measurement function associated with a use condition of the batteries, a measurement function associated with performance of the batteries and a protection function to protect the batteries, wherein ~~a tab~~ battery tabs at both ends ~~is~~ are connected to a cathode and an anode of the battery and a central tab is connected to a midpoint lead, and

wherein the midpoint lead is adapted to measure a potential between two batteries, and wherein inside of the outer case is completely separated into two chambers by a partition wall and the batteries and the circuit are separately housed in the two chambers, respectively, and wherein the outer case comprises an open top lower case with an inside that is sectioned into a plurality of chambers by a lower partition wall; and an upper case having an upper partition wall with a groove corresponding to the lower partition wall such that the two chambers have hermetic structures by formation of the partition wall by press fitting the lower partition wall into the groove of the upper partition wall and by forming a joint at an opening of the lower case, wherein the tabs are arranged on the lower partition wall by insert molding and the tabs are made by punching out a metal plate material into a strip shape and bending the strip in a given shape.

Claims 8-9 (canceled).

Claim 10 (original): The battery pack according to claim 7, wherein a tab of the outer case and a tab of the battery have branched parts on each edge and are connected by engaging the branched parts of the tab of the outer case and the branched parts of the tab of the battery.

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Claim 11 (original): The battery pack according to claim 7, wherein the outer case comprises tabs installed through at least one of the lower partition wall and the upper partition wall for electrically connecting the batteries and the circuit.